

1. Report No. ND 2002-02	2. Report Date April 2003	3. Contract No. N/A	4. Project No. NH-8-013(030)380
5. Title and Subtitle  Performance of HBP Vs. PCC Pavement		6. Report Type <a href="#">Click on link to open report</a>  Work Plan <input type="checkbox"/> <a href="#">Construction</a> <input checked="" type="checkbox"/> Evaluation <input type="checkbox"/> Final <input type="checkbox"/>	7. Project No.  8. Project No.  9. Project No.  10. Project No.
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12. Performing Organization Name and Address  NDDOT M+R <input checked="" type="checkbox"/> North Dakota DOT NDDOT OTHER* <input type="checkbox"/> Materials and Research Division NDSU <input type="checkbox"/> 300 Airport Road UND <input type="checkbox"/> Bismarck ND 58504-6005 UGPTI <input type="checkbox"/> OTHER* <input type="checkbox"/> *see supplementary notes		13. Sponsoring Agency Name and Address  North Dakota DOT Materials and Research Division 300 Airport Road Bismarck ND 58504-6005	
14. Supplementary Notes			
15. Abstract <b><u>Purpose and Need</u></b>  The use of Portland Cement Concrete (PCC) pavement or Hot Bituminous Pavement (HBP) is dictated by highway classification, whether it is rural or in an urban area, subgrade properties in certain cases, and most importantly - traffic. Typically, in areas with high ESALs, such as interstates and urban areas, PCC Pavement has been the preferred alternative when these areas are reconstructed. Within the past decade, there have been changes in pavement design methodologies and improved material properties that are intended to increase pavement performance. NDDOT desires to collect current information comparing the performance of PCC Pavement and HBP based on design methods and material properties currently in use by NDDOT.  <b><u>Objective</u></b>  The objective is to compare the performance of HBP versus PCC Pavement based on current design methods and improved materials.  <b><u>Scope</u></b> For comparison, a section of ND Highway 13 was reconstructed with HBP and PCC pavement sections. Three different pavement sections were designed and constructed using current NDDOT practices. Segment 1 is HBP with HBP shoulders. Segment 2 is doweled PCC pavement with HBP shoulders. Segment 3 is doweled PCC pavement with PCC shoulders. Construction of the three segments will be evaluated for relative cost, quality of the finished pavement, and for ease of construction. Thereafter, the project will be evaluated every two years for a minimum period of ten years with the possibility of extending the evaluation period based on pavement performance. The HBP and PCC pavement sections were constructed as part of project NH-8-013(030)380. This project was the reconstruction of the westbound roadway of ND Highway 13, a four-lane, divided highway that is classified as an interregional corridor. The project extends 8.9 miles from I-29 to the west city limits of Wahpeton, ND. It is in a rural area with some industrial facilities on the east end of the project. The biennial evaluation will use maintenance costs, visual inspections, and the NDDOT "Pathways Van". Data collected from visual inspection will include: distresses (e.g. cracks, ruts, & etc.), pavement & shoulder condition, and observed ride quality. The "Pathways Van" is a Class 3 high-speed profiler that will collect the following data: IRI (International Roughness Index), rut depth, distress score, Ride Index, and PRPI (Public Ride Perception Index).  <b><u>Summary</u></b> All three segments of the completed roadway show no distress and have a good ride. There were some difficulties paving the HBP and the HBP wearing course has some construction joints that contribute to ride roughness. The placement of the PCC pavement had few problems. There are some edge-drains in the PCC segments that may not be draining sufficiently. HBP had the lowest cost of initial construction and PCC pavement with HBP shoulders had the next lowest cost.			
16. Key Words  Asphalt pavement Concrete pavement Performance Shoulders	17. Distribution Statement No restrictions. This document is available to the public from:  North Dakota Department of Transportation Materials and Research Division: 300 Airport Road Bismarck ND 58504-6005 Office: (701) 328-6900 Fax: (701) 328-0310		18. No. of Pages 101  19. File type/Size  Pdf/3.1 MB